EARLY IDENTIFICATION OF STUDENTS AT RISK USING ONLINE LEARNING ACTIVITIES

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ABSTRACT

As students embark on their learning journey, feedback can have a powerful effect on their progress. Feedback is part of a cycle of learning, providing information about goals, how to achieve these goals and whether these goals have been achieved. Many students use and adapt learning techniques, where they have received regular feedback, from their secondary education. As the students start their tertiary learning, without feedback information during the first few weeks, many students are uncertain whether they are on track for success as they progress to their first major assessments.

This study describes how online practice activities provided an opportunity to measure student response patterns that were then used to indicate if students were "on track". Erratic response patterns reflect student uncertainty in answering assessment items. Traditionally scores from these practice activities were used to indicate success. However, scores often mask uncertainty in response patterns, where two students seemingly achieving the same score early in the semester may have marked divergence in their performance later in the course. The response data was turned into real time alerts and provided feedback to teachers and students. These alerts were shown to be 80% more predictive of exam scores than the traditional scores achieved during the online activities. Students received alerts about their progress during the semester. After each alert was sent, students were surveyed to find out if they agreed with the information about their learning progress and whether they made adjustments to their learning techniques.

This project demonstrated how it is possible to use real time data to identify students who are "off track" and potentially at risk. This early warning indicator to learners and teachers allows for appropriate support to be provided by teachers as just-in-time instruction. Students are also able to reconsider the learning techniques they were using and make adjustments. It is then possible for students to get on track for success.